

ABSTRAK

Friska Laura Nadeak, NIM 4193311023 (2024), Analisis Perbedaan Kemampuan Komunikasi Matematis Siswa dengan Penerapan *Model Realistic Mathematics Education (RME)* dan *Problem Based Learning (PBL)*.

Penelitian ini bertujuan untuk menganalisis kemampuan komunikasi matematis siswa dengan penerapan Model RME lebih baik dari kemampuan komunikasi matematis siswa dengan penerapan Model PBL pada siswa kelas VIII SMP Negeri 8 Medan T.A 2023/2024. Populasi dalam penelitian ini adalah semua siswa kelas VIII yang melibatkan 10 kelas, sehingga dipilih dua kelas secara acak, yaitu kelas VIII-1 sebanyak 30 siswa yang diberi perlakuan menggunakan model RME menjadi kelas eksperimen I dan kelas VIII-7 sebanyak 30 siswa yang diberi perlakuan menggunakan model PBL menjadi kelas eksperimen II. Instrumen yang dipakai pada penelitian ini adalah *posttest* 4 soal essay yang divalidasi oleh ahli. Kelas eksperimen I menghasilkan nilai rata-rata *posttest* sebesar 82,43 sedangkan kelas eksperimen II menghasilkan nilai rata-rata nilai *posttest* kelas sebesar 77,36. Hasil analisis menunjukkan bahwa data *posttest* berdistribusi normal dan homogen. Selesai dilakukan pengujian hipotesis diperoleh $t_{hitung} > t_{tabel}$ yaitu $1,882 > 1,699$. Maka H_0 ditolak dan H_a diterima, akhirnya disimpulkan bahwa kemampuan komunikasi matematis siswa dengan penerapan Model RME lebih baik dari kemampuan komunikasi matematis siswa dengan penerapan Model PBL.

Kata kunci : Kemampuan Matematis Siswa, *Realistic Mathematics Education (RME)* , *Problem Based Learning (PBL)*.

ABSTRACT

Friska Laura Nadeak, NIM 4193311023 (2024), Analysis of Differences in Students' Mathematical Communication Skills with the Application of Realistic Mathematics Education (RME) and Problem Based Learning (PBL) Models.

This study aims to analyze students mathematical communication skills with the application of the RME Model better than students mathematical communication skills with the application of the PBL Model in grade VIII students of SMP Negeri 8 Medan T.A 2023/2024. The population in this study is all grade VIII students involving 10 classes, so two classes are randomly selected, namely class VIII-1 as many as 30 students who are treated using the RME model into experimental class I and class VIII-7 as many as 30 students who are treated using the PBL model into experimental class II. The instrument used in this study is a posttest of 4 essay questions validated by experts. Experimental class I produced an average posttest score of 82.43 while experimental class II produced an average posttest score of 77.36. The results of the analysis showed that the posttest data was normally distributed and homogeneous. After the hypothesis testing was carried out, $t_{value} > t_{tabel}$ were obtained, namely $1,882 > 1,699$. So H_0 was rejected and H_a was accepted, finally it was concluded that the students' mathematical communication skills with the application of the RME Model were better than the students' mathematical communication skills with the application of the PBL Model.

Keywords: Students Mathematical Ability, *Realistic Mathematics Education* (RME), *Problem Based Learning* (PBL).